8.—On Some of the Scolidae, mostly Elidinae (Hymenoptera), in the South African Museum.—By Rowland E. Turner, F.Z.S., F.E.S.

FAMILY SCOLIDAE.

SUBFAMILY ELIDINAE.

GENUS MYZINE Latr.

In addition to the species mentioned below, there still remain four or five new species of males in the Museum, but as they are usually represented by a single specimen and show few distinctive characters I have not thought it well to describe them. There appear to be a very large number of species of this genus in South Africa, and many more remain to be described. Unfortunately the females are difficult to collect, and the sexes have only been connected in three or four cases. In South Africa the females show much better specific characters than the males.

1. Myzine rufifrons Fabr.

Larra rufifrons Fabr., Entom. System. ii, p. 222, 1793, ♀.
Hab. Estcourt, Natal; M'fongosi, Zululand.

2. Myzine abdominalis Guér.

Meria abdominalis Guér., Rev. de Zool. ii, p. 365, 1839, ♀. Plesia continua Cam., Rec. Albany Mus. i, p. 299, 1905, ♂.

Hab. Dunbrody; Mossel Bay; Stellenbosch, Garies, Namaqualand. The female from Garies has the head black, as is often the case, and the abdomen somewhat infuscated, but I think it is only a colour variety. Meria hottentota Sauss. seems to be a synonym.

3. Myzine cruenta sp. n.

Q. Nigra; mandibulis flagelloque fusco-ferrugineis; abdomine segmentis secundo tertioque macula magna alba utrinque, quarto apice,

quinto sextoque rufis; alis fusco-hyalinis, venis nigris; segmento mediano ruguloso.

Long. 13 mm.

Q. Head rectangular, about half as broad again as long, smooth and shining, with a few scattered punctures, a deep sulcus reaching from between the antenuae to half way to the anterior ocellus; posterior ocelli situated on the sides of large depression, further from the eyes than from each other; eyes rather large, separated from the posterior margin of the head by a distance equal to about half their own length; scape smooth above, clothed with long yellowish hairs beneath. Pronotum shining, with sparse, large, more or less elongate punctures, about twice as long as the scutellum. Pleurae coarsely but rather sparsely punctured, the sides of the median segment finely obliquely striated. Dorsal area of the median segment closely rugulose, verging into fine oblique striae near the sides, the posterior slope transversely rugulose. Abdomen shining, sparsely and finely punctured, with sparse whitish pubescence on the sides. Second cubital cell present, triangular, the side on the cubitus shorter than the others. Stigma large, situated near the middle of the costa.

Hab. Umhlali, Natal. (Barnard.)

This is nearest to *M. rufifrons* Fabr., but is a less robust species, and differs in the sculpture of the median segment, which is smooth in the middle with a longitudinal sulcus in *rufifrons*, rugulose without a sulcus in *cruenta*; also in the narrower shape of the triangular second cubital cell, and in the colour of the head and apical segments of the abdomen. The second recurrent nervure is almost straight in *cruenta*, but strongly bent inwards towards the cubitus in *rufifrons*.

4. Myzine pallidipes sp. n.

Q. Nigra, mandibulis, segmento abdominali sexto, femoribus tibiisque fusco-ferrugineis; clypeo, tegulis tarsisque pallide ferrugineis; pronoto rufo; segmentis dorsalibus 2-4 macula alba utrinque; alis hyalinis, pallide infumatis, venis pallide fuscis; segmento mediano transverse striato, in medio longitudinaliter canaliculato.

Long. 7 mm.

Q. Head subrectangular, a little broader than long, smooth and shining, without a frontal sulcus; eyes large, elongate-ovate, separated from the posterior margin of the head by a distance scarcely equal to their own breadth. Thorax shining, with a few scattered punctures on the mesonotum and scutellum; pronotum twice as broad as long, with a row of small setigerous punctures on the anterior margin. Pleurae

sparsely punctured, and clothed with long greyish pubescence; sides of the median segment smooth below, indistinctly obliquely striated above. Median segment transversely striated, with a deep longitudinal sulcus, a narrow space on each side of the sulcus smooth and shining, the posterior slope transversely striated. Abdomen shining with a few small punctures, the sides sparsely clothed with whitish pubescence. Second cubital cell very small and narrow, the petiole of the cell more than half as long again as the cell itself; second recurrent nervure strongly bent inwards towards the cubitus.

Hab. Capetown. April.

In colour this resembles *sublevis* Turn., but differs strongly in the sculpture of the median segment, in the presence of the second cubital cell, and in the strongly curved second recurrent nervure. It differs from *umbratica* Turn. in the sculpture of the median segment, the colour of the pronotum, and the longer head.

5. Myzine Limata Sm.

Meria limata Sm., Cat. Hym. B. M. iii, p. 81, 1855, ♀.Hab. Kimberlev. Cape.

6. Myzine capicola Turn.

Myzine capicola Turn., Trans. Ent. Soc. London, p. 734, 1912, &.

Hab. Hex River. Cape.

The single specimen in the South African Museum bears the MS. name Meria caffra Sauss.

7. Myzine Rufinodis Turn.

Myzine rufinodis Turn., Trans. Ent. Soc. London, p. 392, 1910, &.

Hab. Hex River; Henkries, Namaqualand, Cape.

One of the Hex River specimens bears the MS. name Meria africana Sauss.

There is some variation in the development of the yellow apical band on the first dorsal segment and in the yellow mark on the apex of the clypeus, both being obsolete in the Namaqualand specimen.

8. Myzine eurygaster sp. n.

3. Niger, albopilosus; mandibulis macula basali, pronoto margine posteriore fascia angusta interrupta, segmento dorsali primo fascia angusta apicali, segmentis 2-6 dorsalibus et ventralibus fascia angusta

bisinuata lateribus dilatata, femoribus apice, tibiis supra, tarsisque, articulo apicali excepto, flavis; alis hyalinis, venis fuscis.

Long. 16 mm.

3. Head and thorax closely and rather strongly punctured, median segment rugosely punctured, all rather thickly clothed with long white pubescence; abdomen finely and more sparsely punctured, thinly clothed with much shorter pubescence. Clypeus broad, the anterior margin almost straight; eyes widely but distinctly emarginate. Antennae stout, of about equal thickness throughout, a little longer than the head, thorax and median segment combined. Pronotum no longer than the scutellum, the anterior margin straight and Scutellum subcarinate longitudinally; median distinctly raised. segment steeply sloped posteriorly. Abdominal segments broad, the petiole short, first segment rounded at the base, segments 2-6 slightly constricted at the base; the apical incision of the seventh dorsal segment large, nearly as broad at the apex as deep, the lateral processes of the incision narrow and pointed, flattened above, the apex smooth, the base rather deeply grooved longitudinally. Second abscissa of the radius longer than the third; first recurrent nervure received beyond two-thirds from the base of the second cubital cell; second beyond one-third from the base of the third cubital cell, curved outward in the middle; second transverse cubital nervure almost straight.

Hab. Durban; Umvoti, Natal.

This approaches more nearly to the male of rufifrons than to any other described species, but has distinctly longer antennae, a shorter clypeus, and a somewhat broader and shorter abdomen; the colour of the clypeus and anterior margin of the pronotum is different, and the yellow abdominal bands narrower. The apical joint of the flagellum is blunt at the apex, not distinctly truncate as in rufifrons. The position of the second recurrent nervure is also different.

9. Myzine pinguis sp. n.

¿. Niger, robustus; elypeo, macula post oculos, pronoto linea utrinque angulis anticis posticisque, postscutello macula, segmento dorsali primo linea apicali utrinque, segmentis dorsalibus et ventralibus 2-6 fascia angusta apicali utrinque interrupta, segmento dorsali septimo macula, tegulis, femoribus apice tibiisque supra flavis; tibiis subtus tarsisque testaceis; mandibulis ferrugineis; alis hyalinis, venis testaceis.

Long. 9 mm.

&. Head and thorax coarsely and closely punctured, median

segment rugose; abdomen deeply but rather sparsely punctured. Clypeus shallowly punctured, very short and broad, almost transverse at the apex. Antennae not very stout, as long as the abdomen, the eves oval, not emarginate. Pronotum shorter than the mesonotum, the anterior margin straight, not much narrowed posteriorly, the posterior margin not strongly arched. Scutellum large, a little longer than the pronotum; median segment shorter than the scutellum, abruptly truncate posteriorly. Petiole very short, first abdominal segment almost as broad as the second; segments 2-6 rather strongly constricted at the base. All the segments very short and broad. Seventh dorsal segment very shallowly incised at the apex, the incision much broader apically than deep, the sides of the incision in the form of short, blunt spines. Aculeus long and strongly recurved. Second abscissa of the radius distinctly longer than the third, radial cell a little shorter and blunter at the apex than in most species of the genus, third transverse cubital nervure curved outwards in the middle, the second straight, the third cubital cell almost as long on the radius as on the cubitus, the second recurrent nervure received near the middle.

Hab. Sebakwe, Rhodesia. November 1901. (D. Dodds.)

In the robust form, the structure of the median segment and of the apical dorsal segment, this approaches the Algerian *M. rousselii* Guér. In that species the eyes are longer and show a trace of emargination on the inner margin, the antennae are shorter and stouter towards the apex, and the shape of the third cubital cell is quite different.

10. Myzine klugi Westw.

Meria klugi Westw., Proc. Zool. Soc. London, iii, p. 53, 1835, ♀. Myzine nigrita Turn., Trans. Ent. Soc. London, p. 391, 1910, ♂.

Hab. O'okiep; Matjesfontein.

A specimen from M'fongosi, Zululand, has the first abdominal segment a little narrower, but does not seem to differ otherwise.

Myzine transvaalensis Cam.

Plesia transvaalensis Cam., Ann. Transvaal Mus. ii, p. 119, 1910, &.

This is near *politissima* Turn., differing in the more distinct puncturation of the abdomen; the deeper emargination of the clypeus; the much more strongly raised anterior margin of the pronotum; the position of the second recurrent nervure, which is nearer to the base of the third cubital cell in *transvaalensis*; and the narrower and more acute processes of the seventh dorsal segment. The scape is yellow beneath in *politissima*, black in *transvaalensis*.

MYZINE IMMACULATA Cam.

Myzine (Meira) immaculatus Cam., Ann. Transvaal Mus. ii, p. 117, 1910, ♀.

This species belongs to the group with no second cubital cell. The stigma is small; and the sulcus on the median segment distinct, much narrowed towards the apex. The frontal sulcus is faint, almost obsolete. The species is easily distinguished from other described species by the ferruginous legs and absence of red or white colouring.

GENUS ELIS Fabr.

SUBGENUS MESA Sauss.

1. Elis (Mesa) peringueyi Sauss.

Plesia (Mesa) peringueyi Saussure, Grandidier: Hist. Madagascar, xx, p. 245, 1892, ♀.

Hab. O'okiep, Namaqualand, Cape. September.

2. Elis (Mesa) xanthocera Gerst.

Myzine xanthocera Gerst., Arch. f. Naturg. xxxvii, p. 353, 1870, ♀; Gerstaecker, v. d. Decken. Reise in Ost-Afrika, Gliederthiere, p. 339, t. 14, fig. 5, 1873.

Hab. M'fongosi, Zululand; Kloof, Natal.

This species has a wide range on the coast of East Africa.

3. Elis (Mesa) adelogamia Turn.

Plesia (Mesa) adelogamia Turn., Ann. & Mag. Nat. Hist. (8) i, p. 503, 1908, ♀.

Hab. Smithfield, Orange Free State; Pt. Shepstone, Natal.

4. Elis (Mesa) auriflua Turn.

Elis (Mesa) auriflua Turn., Proc. Zool. Soc. London, p. 705, 1912, ♀. Hab. Kimberley, Cape; Smithfield, Orange Free State; M'fongosi, Zululand.

5. Elis (Mesa) ruficeps Sm.

Myzine ruficeps Sm., Cat. Hym. B. M. iii, p. 75, 1855, φ .

Elis (Mesa) ruficeps Turn., Ann. & Mag. Nat. Hist. (8), vii, p. 304, 1911, ♀ ♂.

Hab. Durban and Pt. Shepstone, Natal.

Subspecies DIAPHEROGAMIA Sauss.

Hab. M'fongosi, Zululand.

6. Elis (Mesa) heterogamia Sauss.

Plesia (Mesa) heterogamia Saussure, Grandidier: Hist. Madagascar xx, p. 244, 1892, ♀.

Hab. ♀ Comoro Island. ? ♂ Delagoa Bay, Mozambique.

7. Elis (Mesa) hottentota Sauss.

Hab. Stellenbosch; Malmesbury; Hex River, Cape.

Specimens which I refer to this species with some doubt, show considerable colour variation; the Hex River specimens having the two apical segments and the apex of the fourth red, of which colour there are only faint traces in other specimens. In one specimen the apical antennal joint is ferruginous, not yellow as in Saussure's description, but in others does not differ from the rest of the flagellum. The wings are not clouded towards the apex. Otherwise the specimens answer well to the description.

8. Elis (Mesa) longiventris Turn.

Elis (Mesa) longiventris Turn., Proc. Zool. Soc. London, p. 712, 1912, &.

Hab. Hex River; Ceres; Dunbrody; Cape.

9. Elis (Mesa) spoliata Turn.

Elis (Mesa) spoliata Turn., Proc. Zool. Soc. London, p. 711, 1912, &.

Hab. S.W. District, Cape Colony.

10. Elis (Mesa) reticulata Cain.

Plesia reticulata Cam., Rec. Albany Mus. i, p. 300, 1905, &.

Hab. Klerksdorp, Transvaal; Estcourt, Natal.

11. Elis (Mesa) rufofemorata Cam.

Plesia rufofemorata Cam., Rec. Albany Mus. i, p. 298, 1905, & .

Hab. O'okiep, Namaqualand, Cape.

This is very near *spoliata* Turn., but the pubescence is much longer and more dense, the abdomen more closely punctured and the serration

of the hind tibiae more distinct, in addition to considerable colour differences. The emargination of the apical tergite is deeper in spoliata.

SUBFAMILY SCOLIINAE.

GENUS SCOLIA.

Scolia (Trielis) peringueyi sp. n.

Q. Nigra, nigro-hirsuta; mandibulis, flagello tarsisque fusco-ferrugineis; alis fusco-coeruleis.

Long. 19 mm.

♀. Median portion of the clypeus with three parallel longitudinal carinae, the space between the carinae irregularly longitudinally striated. Antennae inserted almost as far from each other as from the eyes, the scape smooth beneath, flattened and sparsely punctured above, the frontal prominence rounded at the apex between the antennae, the lateral carinae above the base of the antennae oblique and strongly marked, the space between them rugose and hirsute; ocellar space smooth and shining, with a few scattered punctured. Thorax coarsely punctured and hirsute, especially on the pronotum and pleurae; mesonotum more sparsely punctured, the middle of the scutellum smooth and shining; median segment short, punctured-rugose, hirsute in the middle; abdomen shining, finely and sparsely punctured, more coarsely on the ventral surface, both dorsal and ventral segments with apical ciliae of coarse black hairs, the apical dorsal segment densely clothed with coarse fusco-ferruginous setae. Legs clothed with long black hairs, spinose, calcaria of hind tibiae spatulate. Third cubital cell almost pointed on the cubitus, the length on the radius equal to fully three-quarters of the length of the second transverse cubital nervure; second cubital cell petiolate.

Hab. Beaufort West. Cape.

This belongs to the group of stigma Sauss, and punctum Sauss, and is most nearly allied to braunsi Turn., differing in the spatulate calcaria, and the denser pubescence which is wholly black, not cinereous on the sides of the thorax and abdomen as in braunsi, the ciliae on the ventral segments in that species being whitish instead of black. Superficially the resemblance to $Myzine\ klugi$ Westw. Q is very close. Described from a single female.

INDEX.

A						M				
A bdominalis (Myzine) delogamia (Elis)				ляе 455 460	Mesa					$\frac{460}{455}$
uriffua (Elis) .		•	٠	460	(7.5.1.)	N				459
C					nigrita (Myzine)		•	•	٠	400
capicola (Myzine)		٠		$\frac{457}{455}$		P				456
cruenta (Myzine)	•	•	•	100	pallidipes (Myzin peringueyi (Elis)	e)			:	460
D				4.0.1	peringueyi (Scolia	ı) —			٠	$\frac{462}{460}$
diapherogamia .	•	•	٠	461	pinguis (Myzine)					455
E						R				
ELIDINAE .			٠	$455 \\ 460$	reticulata (Elis)					461
Elis eurygaster (Myziue)				457	ruficeps (Elis)			٠		$\frac{460}{455}$
Н					rufifrons (Myzine rufinodis (Myzine	9)		:		$\frac{457}{461}$
heterogamia (Elis)				461	rufofemorata (El	is)	٠	٠	٠	401
hottentota (Elis)	٠	٠	٠	461		S				462
1					Scolia SCOLIIDAE					455
immaculata (Myzine)			460	SCOLIINAE				٠	$\frac{462}{461}$
К					spoliata (Elis)	•	٠	•		
klugi (Myzine) .				460		Т				. 460
T ₁					transvaalensis (Myz	ine)	•		. 400
limata (Myzine).				457	(77)	X				. 460
longiventris (Elis)				461	xanthocera (Elis	5)				. 400